

Claims

We claim:

1. A method for supporting a plurality of devices operating on different
5 frequency bands comprising the steps of, during a first period of time:
initiating a contention free period at a first frequency;
switching from the first frequency to a second frequency;
communicating with devices operating at the second frequency; and
periodically during the first period of time, temporarily ceasing the step of
10 communicating with devices operating at the second frequency to initiate a
contention free period at the second frequency, switch from the second frequency
to the first frequency, initiate another contention free period at the first frequency,
and switch from the first frequency back to the second frequency.
- 15 2. The method of claim 1 wherein the first period of time is divided into
intervals, and wherein the step of temporarily ceasing the step of communicating
with devices operating at the second frequency occurs during each interval in the
first period of time.
- 20 3. The method of claim 1 further comprising the steps of:
after the step of switching from the first frequency to the second
frequency, initiating a contention free period at the second frequency;
transmitting multicast data to subscribers operating at the second
frequency; and
25 ending the contention free period at the second frequency.
4. The method of claim 1 wherein the steps of initiating a contention free
period comprises transmitting a beacon message.

5. The method of claim 1 further comprising the steps of, during a second period of time:
- initiating a contention free period at the second frequency;
 - switching from the second frequency to the first frequency;
 - 5 communicating with devices operating at the first frequency; and
 - periodically during the second period of time, temporarily ceasing the step of communicating with devices operating at the first frequency to initiate a contention free period at the first frequency, switch from the first frequency to the second frequency, initiate another contention free period at the second frequency,
 - 10 and switch from the second frequency back to the first frequency.
6. The method of claim 5 wherein the second period of time is divided into intervals, and wherein the step of temporarily ceasing the step of communicating with devices operating at the first frequency occurs during each interval in the
- 15 second period of time.
7. The method of claim 5 further comprising the steps of:
- after the step of switching from the second frequency to the first frequency, initiating a contention free period at the first frequency;
 - 20 transmitting multicast data to subscribers operating at the first frequency;
 - and
 - ending the contention free period at the first frequency.

8. A method for supporting a plurality of devices operating on different frequency bands comprising the steps of:
- during a first period of time,
 - initiating a contention free period at a first frequency;
 - 5 switching from the first frequency to a second frequency; and
 - communicating with devices operating at the second frequency,
 - during a second period of time,
 - initiating a contention free period at the second frequency;
 - switching from the second frequency to the first frequency; and
 - 10 communicating with devices operating at the first frequency.
9. The method of claim 8 further comprising the steps of, during the first period of time:
- after the step of switching from the first frequency to the second
 - 15 frequency, initiating a contention free period at the second frequency;
 - transmitting multicast data to subscribers operating at the second frequency; and
 - ending the contention free period at the second frequency.
- 20 10. The method of claim 8 further comprising the steps of, during the first period of time:
- after the step of switching from the second frequency to the first frequency, initiating a contention free period at the first frequency;
 - transmitting multicast data to subscribers operating at the first frequency;
 - 25 and
 - ending the contention free period at the first frequency.